

# Appendix F. FEMA PDM Plan Crosswalk

## LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT 2009 – Plan Update

### INSTRUCTIONS FOR USING THE PLAN REVIEW CROSSWALK FOR REVIEW OF LOCAL MITIGATION PLANS

Attached is a Plan Review Crosswalk based on the *Local Multi-Hazard Mitigation Planning Guidance*, published by FEMA in July 2008. This Plan Review Crosswalk is consistent with the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), as amended by Section 322 of the Disaster Mitigation Act of 2000 (P.L. 106-390), the National Flood Insurance Act of 1968, as amended by the National Flood Insurance Reform Act of 2004 (P.L. 108-264), and 44 Code of Federal Regulations (CFR) Part 201 – Mitigation Planning, inclusive of all amendments through October 31, 2007.

#### SCORING SYSTEM

**N – Needs Improvement:** The plan does not meet the minimum for the requirement. Reviewer's comments must be provided.

**S – Satisfactory:** The plan meets the minimum for the requirement. Reviewer's comments are encouraged, but not required.

Each requirement includes separate elements. All elements of a requirement must be rated "Satisfactory" in order for the requirement to be fulfilled and receive a summary score of "Satisfactory." A "Needs Improvement" score on elements shaded in gray (recommended but not required) will not preclude the plan from passing.

When reviewing single jurisdiction plans, reviewers may want to put an N/A in the boxes for multi-jurisdictional plan requirements. When reviewing multi-jurisdictional plans, however, all elements apply. States that have additional requirements can add them in the appropriate sections of the *Local Multi-Hazard Mitigation Planning Guidance* or create a new section and modify this Plan Review Crosswalk to record the score for those requirements. Optional matrices for assisting in the review of sections on profiling hazards, assessing vulnerability, and identifying and analyzing mitigation actions are found at the end of the Plan Review Crosswalk.

#### The example below illustrates how to fill in the Plan Review Crosswalk:

Assessing Vulnerability: Overview				
<b>Requirement §201.6(c)(2)(ii):</b> <i>[The risk assessment shall include a) description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community.]</i>				
Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the <b>new or updated</b> plan include an <b>overall summary</b> description of the jurisdiction's vulnerability to each hazard?	Section I, pp. 4-10	The plan describes the types of assets that are located within geographically defined hazard areas as well as those that would be affected by winter storms.		X
B. Does the <b>new or updated</b> plan address the <b>impact</b> of each hazard on the jurisdiction?	Section II, pp. 10-20	<p>The plan does not address the impact of two of the five hazards addressed in the plan.</p> <p><b>Required Revisions:</b></p> <ul style="list-style-type: none"><li>▪ Include a description of the impact of floods and earthquakes on the assets.</li></ul> <p><b>Recommended Revisions:</b></p> <p>This information can be presented in terms of dollar value or percentages of damage.</p>	X	
SUMMARY SCORE			X	

# LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT 2009, Plan Update

## LOCAL MITIGATION PLAN REVIEW SUMMARY

The plan cannot be approved if the plan has not been formally adopted. Each requirement includes separate elements. All elements of the requirement must be rated "Satisfactory" in order for the requirement to be fulfilled and receive a score of "Satisfactory." Elements of each requirement are listed on the following pages of the Plan Review Crosswalk. A "Needs Improvement" score on elements shaded in gray (recommended but not required) will not preclude the plan from passing. Reviewer's comments must be provided for requirements receiving a "Needs Improvement" score.

Prerequisite(s) (Check Applicable Box)		NOT MET		MET	
1. Adoption by the Local Governing Body: §201.6(c)(5) OR				NA	
2. Multi-Jurisdictional Plan Adoption: §201.6(c)(5) AND				X	
3. Multi-Jurisdictional Planning Participation: §201.6(a)(3)				X	
Planning Process		N		S	
4. Documentation of the Planning Process: §201.6(b) and §201.6(c)(1)				X	
Risk Assessment		N		S	
5. Identifying Hazards: §201.6(c)(2)(i)				X	
6. Profiling Hazards: §201.6(c)(2)(i)				X	
7. Assessing Vulnerability: Overview: §201.6(c)(2)(ii)				X	
8. Assessing Vulnerability: Addressing Repetitive Loss Properties: §201.6(c)(2)(iii)				X	
9. Assessing Vulnerability: Permanent Structures, Infrastructure, and Critical Facilities: §201.6(c)(2)(iv)(B)			X		
10. Assessing Vulnerability: Estimating Potential Losses: §201.6(c)(2)(v)(B)			X		
11. Assessing Vulnerability: Analyzing Development Trends: §201.6(c)(2)(v)(C)			X		
12. Multi-Jurisdictional Risk Assessment: §201.6(c)(2)(iii)				X	

\*States that have additional requirements can add them in the appropriate sections of the Local Multi-Hazard Mitigation Planning Guidance or create a new section and modify this Plan Review Crosswalk to record the score for those requirements.

JULY 1, 2008 (W / D F I R M)

## SCORING SYSTEM

Please check one of the following for each requirement.

N – Needs Improvement: The plan does not meet the minimum for the requirement. Reviewer's comments must be provided.

S – Satisfactory: The plan meets the minimum for the requirement. Reviewer's comments are encouraged, but not required.

Mitigation Strategy		N		S	
13. Local Hazard Mitigation Goals: §201.6(c)(3)(i)				X	
14. Identification and Analysis of Mitigation Actions: §201.6(c)(3)(ii)				X	
15. Identification and Analysis of Mitigation Actions: NFIP Compliance: §201.6(c)(3)(i)				X	
16. Implementation of Mitigation Actions: §201.6(c)(3)(iii)				X	
17. Multi-Jurisdictional Mitigation Actions: §201.6(c)(3)(iv)				X	
Plan Maintenance Process		N		S	
18. Monitoring, Evaluating, and Updating the Plan: §201.6(c)(4)(i)				X	
19. Incorporation into Existing Planning Mechanisms: §201.6(c)(4)(ii)				X	
20. Continued Public Involvement: §201.6(c)(4)(iii)				X	
Additional State Requirements*		N		S	
Insert State Requirement					
Insert State Requirement					
Insert State Requirement					

## LOCAL MITIGATION PLAN APPROVAL STATUS

PLAN NOT APPROVED ☐

See Reviewer's Comments

PLAN APPROVED ☐ XXX

**Reviewer's Comments: An Overview of the Wasatch Front Region Plan Update****Overall Comments**

This plan meets the requirements of 44 CFR §201.6, *Local Mitigation Plans*. Overall, however, for the resources that have been made available and the capabilities afforded to this region, the plan's update does not analyze the change in vulnerability and progression in risk reduction needed for one of the fastest growing areas of the country. By covering such a large area and a large population, this plan should seek new ways to address these planning elements of 44 CFR §201.6 so that individual communities can demonstrate progression between their risks and their risk reduction strategies. This plan and its process can be strengthened by demonstrating where these communities have been, where they are today, and where they are heading with what still needs to be done in terms of their risk and risk reduction strategies. These mitigation strategies should be reducing the costs and need for preparedness, response, and recovery in the first place. Also, by covering such a large region in a planning process, the local community engagement and collaboration can miss opportunities that are meaningful at the local level. The opportunities for non-agency stakeholders with interests in these local communities were not readily apparent in this planning process.

**Plan Organization/Format**

The plan is well formatted and generally follows the outline of the crosswalk. The table of contents loses the location of where to find the vulnerability analysis and land use and development information, the NFIP information, and the 2009 Mitigation Strategy, which could be resolved possibly by having Sub-Part titles and page numbers in this TOC. Tables and maps are provided throughout the document, which presents a thorough discussion of the hazards. In some cases, the map legends are illegible. Be sure each table, graphic, and map has source information as well as dates.

**Public/Stakeholder Participation & the Planning Process**

The plan provides a clear description of the technical effort that went into the most recent planning process. A broader public and non-governmental agency collaborative effort would enable the development of mitigation actions that are supported by and reflect the needs of the community. From the lists provided, there appear to be almost no non-governmental agency stakeholders on the work groups, committees, etc. This region is a major economic hub with major employers from the business, tourism, recreational, and industry perspective and resources that could have significant roles in the long term risk reduction of this area's interests. Public hearings where the plans are adopted provide the minimal opportunity for the public to be involved. More active outreach to the public and stakeholders may ensure success of their involvement. Are there any existing earthquake study groups or committees that could be partnered with for example? It is recommended to provide supporting documentation for the planning process to provide this insight into the level of involvement and collaboration within the communities.

Review of existing plans, studies, programs, etc.: While mentioned and explained that these exist, there is no demonstration that the process for updating this plan included a review and use of the local jurisdictions master, general, or comprehensive plans and their sub-communities' plans or any other local community development planning documents and studies. If these were used to develop this plan and its update, there is no citation or reference to be found. There was a lot of information provided for the development trends and existing/future development sections. These plans are critical documents that have been adopted by these local communities with direction for its existing and future development. The next plan update must address its review and use of these documents into this Plan. Such examples are the Salt Lake County Canyon Master Plan Update and the Salt Lake City Transportation Plan.

**Risk Assessment**

The risk assessment is detailed in many areas and provides descriptions of the hazard areas for each county and how they vary (but lacking within the individual towns and cities or special districts). The plan exceeds requirements by providing capability assessments. The risk data was obtained from a variety of sources and provides a complete picture of the past occurrences for most hazards. That said, the risk assessment for the next update should find ways to provide a more meaningful assessment for the individual jurisdictions to use to develop their specific strategies and priorities. Also, the risk assessment should provide the means to understand the progression of its risk reduction activities over time. This progression and evaluation should demonstrate how these strategies are resulting in decreased risk, increased risk, no changes since the last plan update and continue to monitor over time whether goals are being attained. More specifics would

help to bring about this understanding. Changes in the risk and vulnerability findings should be made more apparent to the user of the plan since the last update – what's changed? The land use and development information should continue to be developed with more meaningful specifics to the communities and their decision-makers as it relates to its spatial significance with the identified hazard locations and the changes in risk and vulnerability as noted above.

### **Mitigation Strategy**

The mitigation strategy includes several long-term mitigation actions for jurisdictions seeking plan approval. However, this section was marginally met due to a lack of specificity of 'one action for each jurisdiction.' Tooele and Morgan Counties had all together omitted the list of jurisdictions in the strategy section. This was considered marginally met since there was some level of reference to the jurisdictions in the problem identification description for the hazard type strategy. For the other counties, many of these actions applied to a 'countywide' jurisdiction. Referring to comments made above in the Risk Assessment section, this may require more meaningful assessments to the individual local jurisdictions so that they may focus on strategies unique to their risks, capabilities, and resources. For the next update, the plan should improve its description for each jurisdiction's participation in the NFIP as described by each jurisdiction's flood hazard identification and mapping, floodplain management, and insurance. The plan update should improve the description on identifying, analyzing and prioritizing actions related to continued compliance with the NFIP and should address those sanctioned communities by the NFIP. It is recommended that the plan include definitions for the mitigation action prioritization system and describe how the public was involved in the prioritization process.

### **Plan Maintenance**

This section was weak in that there was no context of what was proposed in the previous plan and this update in terms of monitoring, evaluating, and updating the plan – especially for a user of this plan. An update should address what was stated for maintenance in 2003 and apply it to this update as well as determine the maintenance for the next planning period based on the outcomes of the plan being updated. The plan should provide in the next update an improved description of the method and schedule to monitor, evaluate, and update the plan. It is recommended to highlight an outreach process for all three requirements regarding – monitoring, evaluating, and updating your plan. It is recommended to consider each jurisdiction seeking plan approval in these processes. The results of the evaluation accompanied by a discussion should be provided in the next plan update.

# **LOCAL MITIGATION PLAN REVIEW CROSSWALK**

Wasatch Front Region, UT 2009 – Plan Update

## **Local Mitigation Plan Review and Approval Status**

<b>Jurisdiction:</b>	Wasatch Front Regional Council	<b>Title of Plan Update:</b>	Natural Hazard Pre-Disaster Mitigation Plan	<b>Date of Plan Update:</b>	July 2008
<b>Local Point of Contact:</b>	DeeEll Fifield	<b>Address:</b>	295 N. Jimmy Doolittle Road Salt Lake City, UT 84116		
<b>Title:</b>	Hazard Mitigation Planner	<b>E-Mail:</b>	dfifield@wfric.org		
<b>Agency:</b>	Wasatch Front Regional Council				
<b>Phone Number:</b>	801-363-4230 ext.104				

<b>State Reviewer:</b>	AnnaRae Garrett	<b>Title:</b>		<b>Date:</b>	February 24, 2009
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<b>FEMA Reviewer:</b>	Margaret Doherty, AICP Nan Johnson	<b>Title:</b>	URS Corporation, Senior Planner FEMA RVIII Mitigation, Risk Analysis, Planner	<b>Date:</b>	April 2, 2009 April - August 2009
<b>Date Received in FEMA Region VIII</b>	March 2, 2009; June 17, 2009				
<b>Plan Not Approved</b>					
<b>Plan Approved</b>	Plan determined to be approvable pending adoption on 8/18/09 (Note: Plan required revisions on 4/16/09)				
<b>Date Approved</b>	November 20, 2009				

Jurisdiction:	DFIRM		NFIP Status*			
	In Plan	NOT in Plan	Y	N	N/A	CRS Class
1. Davis County—Participating since 03/01/82. Effective map 06/18/07			X			
2. City of Bountiful—Participating since 09/29/78. Effective 06/18/07			X			
3. City of Centerville—Participating since 03/01/82. Effective 06/18/07	X		X			
4. City of Clearfield—Participating since 02/20/79. Effective 06/18/07			X			
5. City of Clinton—Participating effective 07/21/87. NSFHA	X		X			

JULY 1, 2008 (W / D F I R M)

# LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT, 2009 - Plan Update

Jurisdiction:	DFIRM		NFIP Status*			
	In Plan	NOT in Plan	Y	N	N/A	CRS Class
6. City of Farmington—Participating since 08/17/81; Effective 06/18/07			X			
7. City of Fruit Heights—Participating since 08/17/81; Effective 06/17/07			X			
8. City of Kaysville—Participating since 03/01/82; Effective 06/18/07			X			
9. City of Layton—Participating since 12/01/82; Effective map 5/18/07	X		X			
10. City of North Salt Lake—Participating since 08/29/78; Eff. 06/17/07			X			
11. City of South Weber—Participating since 09/12/78; Effective 06/18/07			X			
12. City of Sunsel—Participating since 11/21/78; Effective 06/18/07			X			
13. City of Syracuse—Participating since 03/01/78; NSFHA			X			
14. City of West Bountiful—Participating since 08/03/81; Eff. 05/18/07			X			
15. City of West Point—SANCTIONED 06/18/08; Effective map 06/18/07				X		
16. City of Woods Cross—Participating since 08/29/78; Effective 06/18/07			X			
17. Morgan County—Participating since 09/28/90; Effective map 09/28/90	X		X			
18. City of Morgan City—Participating since 07/16/87; Effective map 07/16/87	X		X			
19. Salt Lake County—Participating since 12/18/65; Effective map 05/15/02			X			
20. Alta—Not participating, not mapped (Not in Status Book)					X	
21. City of Bluffdale—Participating since 05/30/87; Effective 05/15/02	X		X			
22. Cottonwood Heights—SANCTIONED 08/30/78; Eff. map 12/05/05				X		
23. City of Draper City—Participating since 12/18/85; Effective 05/15/02			X			
24. Town of Herriman—Participating 03/12/02; Effective map 05/15/02	X		X			

JULY 1, 2008 (W/D FIRM)

# LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT 2009 - Plan Update

Jurisdiction:	DFIRM		NFIP Status*			
	In Plan	NOT in Plan	Y	N	N/A	CRS Class
25. City of Midvale—Participating 02/02/84; Effective map 05/15/02	X		X			
26. City of Murray—Participating since 12/18/85; Effective 05/15/02			X			
27. City of Riverton—Participating 02/19/86; Effective map 05/15/02	X		X			
28. City of Salt Lake City—Participating since 08/01/83; Eff. 05/15/02			X			
29. City of Sandy City—Participating 12/18/85; Effective map 05/15/02	X		X			
30. City of South Jordan—Participating since 12/18/85; Effective 05/15/02			X			
31. City of South Salt Lake—Participating since 12/18/85; Eff. 12/18/85			X			
32. City of Taylorsville—Participating since 10/09/98; Effective 05/15/02			X			
33. City of West Jordan—Participating since 09/01/87; Effective 05/15/02			X			
34. City of West Valley—Participating 05/01/86; Effective map 05/15/02	X		X			
35. Tooele County—Participating since 11/16/90	X		X			
36. City of Grantsville—Participating since 07/10/85; NSFHA			X			
37. City of Tooele City—Participating since 09/29/89; Effective 11/18/09			X			
38. Weber County—Participating since 07/19/82			X			
39. City of Farr West—SANCTIONED 12/02/06; Effective map 12/16/05				X		
40. City of Harrisville—Participating since 06/15/82; Effective 12/16/05			X			
41. City of Hooper—SANCTIONED 12/02/06; Effective map 12/16/05				X		
42. Town of Huntsville—SANCTIONED 06/21/75; Effective map 12/16/05				X		
43. City of Marriott-Staterville—Participating since 10/07/08; Effective map 12/16/05	X		X			
44. City of North Ogden—Participating since 01/19/83; Effective 12/16/05			X			

JULY 1, 2008 (W / D F I R M)

# LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT, 2009 – Plan Update

45. City of Ogden—Participating since 01/19/83; Effective 12/16/05				X				
46. City of Plain City—Participating since 05/19/81; Effective 12/16/05				X				
47. City of Pleasant View—Participating since 03/30/81; NSFHA				X				
48. City of Riverdale—Participating since 02/03/82; Effective 12/16/05				X				
49. City of Roy—Participating since 10/24/78; Effective 12/16/05				X				
50. City of South Ogden—Participating since 03/01/82; Effective 12/16/05				X				
51. Town of Uintah—Participating since 05/19/81; Effective 12/16/05				X				
52. City of Washington Terrace—Not Participating, not mapped (Not in Status Book)							X	
53. City of West Haven—Participating since 12/16/05; Effective 12/16/05				X				
54. Pineview Water District							X	
55. Bona Vista Water District							X	
56. Weber School District							X	
57. Ogden School District							X	
58. Northview Fire District							X	
59. Morgan School District							X	
60. South Davis Fire District							X	

\* Notes: Y = Participating N = Not Participating N/A = Not Mapped

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**LOCAL MITIGATION PLAN REVIEW CROSSWALK** Wasatch Front Region, UT 2009 - Plan Update  
**PREREQUISITE(S)**

**1. Adoption by the Local Governing Body**

**Requirement §201.6(c)(5):** [The local hazard mitigation plan *shall include*] documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval of the plan (e.g., City Council, County Commissioner, Tribal Council).

Element	Location in the Plan (Section or annex and page #)	Reviewer's Comments	SCORE	
			NOT MET	MET
A. Has the local governing body adopted <b>new or updated</b> plan?	NA	This is a multi-jurisdictional plan.		
B. Is supporting documentation, such as a resolution, included?	NA	This is a multi-jurisdictional plan.		
SUMMARY SCORE				
				NA

**2. Multi-Jurisdictional Plan Adoption**

**Requirement §201.6(c)(5):** For multi-jurisdictional plans, each jurisdiction requesting approval of the plan *must* document that it has been formally adopted.

Element	Location in the Plan (Section or annex and page #)	Reviewer's Comments	SCORE	
			NOT MET	MET
A. Does the <b>new or updated</b> plan indicate the specific jurisdictions represented in the plan?	Part II Pages 9-12, 15-18; Appendix E Page 405-408	Yes. Part II of the plan includes a complete list of all the jurisdictions within the Wasatch Front region and notes whether or not they participated in the plan's development. The plan includes at total of 92 'participating' jurisdictions (59 counties and municipalities, 33 special districts) as listed in the tables from pages 9-12 of the plan. However, refer to notes below regarding these jurisdictions' participation. A map of the State of Utah, with the counties that are within the Wasatch Front region, is included on Page 43.  Page 9 includes a clear statement that all listed jurisdictions are seeking plan approval and Pages 405-408 in Appendix E provide attendance rosters for each of the meetings in the planning process.  Pages 15-18 lists representatives from a variety of entities (municipalities, Air Force bases, districts and counties) that were asked to participate in working groups. Not all of these invitees are shown to have participated in the meetings listed in Appendix E of the plan. Also, there are more jurisdictions than		X

		<p>invitees:</p> <p>The following jurisdictions demonstrated participation in the planning process and will be approved if they adopt the plan: Davis County and the following municipalities: Bountiful, Clinton, Centerville, Clearfield, Farmington, Fruit Heights, Kaysville, Layton, North Salt Lake, South Weber, Sunset, Syracuse, West Bountiful, West Point, and Woods Cross; Morgan County and Morgan City; Salt Lake County and the following municipalities: Alta, Bluffdale, Cottonwood Heights, Draper City, Herriman, Holladay, Midvale, Murray, Riverton, Salt Lake City, Sandy City, South Jordan, South Salt Lake, Taylorsville, West Jordan, and West Valley; Tooele County and the following municipalities: Grantsville and Tooele City; Weber County and the following municipalities: Farr West, Harrisville, Hooper, Huntsville, Marriott-Slaterville, North Ogden, Ogden, Plain City, Pleasant View, Riverdale, Roy, South Ogden, Uintah, Washington Terrace, and West haven. The districts that have demonstrated participation are: Pineview Water, Bona Vista Water, Weber School District, Northview Fire District, Morgan School District, and South Davis Fire District.</p>		
<p>B. For each jurisdiction, has the local governing body adopted the <b>new or updated</b> plan?</p>	Page 13	<p>Yes, the following local governments have adopted the plan: City of South Jordan, City of South Salt Lake, City of Cottonwood Heights, Murray City, Town of Alta, and West Jordan City.</p> <p>The plan includes a sample resolution.</p> <p><b>Recommended Revisions:</b></p> <ul style="list-style-type: none"> <li>Participants of a multi-jurisdictional plan will assume the expiration date five years from the first jurisdiction's approval date regardless of other participant's subsequent adoption date(s). FEMA recommends that all participating jurisdictions coordinate the adoption process as soon as the plan has received "approvable pending adoption" status to ensure that all participants are covered by a plan for the full five years.</li> <li>For each community seeking plan approval it is recommended that they include a description of the requirements of their adoption process, for example, how many signatures and from what entity are required for formal</li> </ul>		X

		adoption. For more information about adopting the mitigation plan, see <i>Bringing the Plan to Life</i> (FEMA 386-4), Step 1 and <i>Multi-Jurisdictional Mitigation Planning</i> (FEMA 386-8), p. 4.		
C. Is supporting documentation, such as a resolution, included for each participating jurisdiction?	Page 13	Copies of signed resolutions have been received for the following jurisdictions: City of South Jordan (#R2009-32, 10/6/2009); City of Cottonwood Heights (#2009-54, 09/23/2009); City of South Salt Lake (#2009-38, 09/23/2009); Town of Alta (2008-R-8, 12/17/2008); Murray City (#R09-46, 10/20/2009); and West Jordan City (#09-168, 10/28/2009).  Other participating jurisdictions are not approved until copies of adoption resolutions are received.	X	

## SUMMARY SCORE

X

## 3. Multi-Jurisdictional Planning Participation

**Requirement §201.6(a)(3):** Multi-jurisdictional plans (e.g., watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process ... Statewide plans will not be accepted as multi-jurisdictional plans.

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			NOT MET	MET
A. Does the new or updated plan describe how each jurisdiction participated in the plan's development?	Part II Page 9; Appendix E Page 405-408	Yes. The plan describes how the Utah Division of Homeland Security (DHS) contracted with the Wasatch Front Regional Council (WFRC) to update the 2003 plan. The WFRC designated a core planning team made up of WFRC planning and Geographic Information System (GIS) staff and a technical committee made up of DHS staff and representatives from the five counties. Local working groups were also established. For each of these groups, the plan includes the member names and the organization they represent. Pages 405-408 in Appendix E provide attendance rosters for each of the meetings in the planning process.  <b>Recommended Revision:</b> Provide supporting documentation for the planning process such as: a. Meeting summaries/notes b. Meeting agendas; also, time sheets could be used if tracking in-kind matching hours from participants. c. Meeting notices – newspaper ads or articles, radio announcements, press releases, flyers, etc.		X

# LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT 2009 Plan Update

B. Does the updated plan identify all participating jurisdictions, including new, continuing, and the jurisdictions that no longer participate in the plan?	Part II Page 9-12	<p>For the next update, provide a clear understanding of each of these jurisdictions' participation and how they worked together in the review and decisionmaking process such as on deciding the strategies and the priorities of these strategies. This is a very large area to cover for a planning process and community participation is still required and encouraged within each of these jurisdictions if wanting to be recognized individually for its approval.</p> <p>Refer to FEMA How-To Guide #1 on initiating a comprehensive local mitigation planning process, see <i>Getting Started</i> (FEMA 386-1), Steps 1-3 and <i>Multi-Jurisdictional Mitigation Planning</i> (FEMA 386-8), p.8.</p> <p>Yes. A table on pages 9-12 lists all Wasatch Front region jurisdictions that participated in the planning process. The plan describes on page 9 that all the jurisdictions that participated in the 2003 plan also participated in the 2009 plan and are seeking approval as a participating jurisdiction. The plan also states that special service districts (listed on pages 11-12) were added in the 2009 planning process for the first time. However, as noted in the comments above, several of these jurisdictions have not demonstrated their participation.</p>	
			X
SUMMARY SCORE			X

**PLANNING PROCESS: §201.6(b):** *An open public involvement process is essential to the development of an effective plan.*

## 4. Documentation of the Planning Process

**Requirement §201.6(b):** *In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:*

- (1) *An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;*
- (2) *An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process; and*
- (3) *Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.*

**Requirement §201.6(c)(1):** *[The plan shall document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S

# **LOCAL MITIGATION PLAN REVIEW CROSSWALK**

Wasatch Front Region, UT 2009 - Plan Update

<p><b>A.</b> Does the plan provide a narrative description of the process followed to prepare the <b>new or updated</b> plan?</p>	<p>Part III Pages 15-23</p>	<p>Yes. The plan describes a 13-step process followed to develop the plan, as follows: 1) Organize Resources; 2) Public Officials Outreach; 3) Establish Continuity in the Planning Process; 4) Data Acquisition; 5) County Hazard Identification and Profile; 6) County Vulnerability Assessment; 7) Review Existing Local Mitigation Actions; 8) Form Local Working Groups; 9) Risk Assessment Review; 10) Mitigation Strategy Development; 11) Prioritization of Identified Mitigation Strategies; 12) State Review; and 13) Adoption. The plan also includes a timeline showing the plan development activities from January 2006 to December 2008 on pages 20-21. The process followed the logical steps of development as outlined in the FEMA "How To" Guides.</p> <p>The plan states on page 18 that the planning committee and working groups reviewed the 2003 plan and determined that all plan sections would need to be updated and revised. On page 22, the plan states that "based on the large amount of growth in communities throughout the WFRG Region, it was determined by the Working Groups that the entire Plan would be updated."</p>	<p>X</p>
<p><b>B.</b> Does the <b>new or updated</b> plan indicate who was involved in the <b>current</b> planning process? (For example, who led the development at the staff level and were there any external contributors such as contractors? Who participated on the plan committee, provided information, reviewed drafts, etc.?)</p>	<p>Part III Page 15-18; Appendix E pgs. 405-408</p>	<p>Yes. The WFRG designated a core planning team made up of WFRG planning and Geographic Information System (GIS) staff and a technical committee made up of DHLIS staff and representatives from the five counties. Local working groups were also established. For each of these groups, the plan includes the member names and the organization they represent. Existing planning entities are included in the list.</p>	<p>X</p>
<p><b>C.</b> Does the <b>new or updated</b> plan indicate how the public was involved? (Was the public provided an opportunity to comment on the plan during the drafting stage and prior to the plan approval?)</p>	<p>Part III Page 22</p>	<p>Yes. The plan describes how public involvement opportunities were available through public official representation on the working groups and through the project website. The first draft of the plan was on the WFRG website for a 30-day public comment and review period. There were no public comments. There was no information of how this website was made known to the communities and their public. Official public meetings were held to adopt the plan. The plan states that "a number of newspaper articles on the PDM planning process" were published.</p> <p><b>Recommended Revisions:</b></p> <ul style="list-style-type: none"> <li>Public hearings where the plans are adopted provide minimal opportunity for the public to be involved and do not</li> </ul>	<p>X</p>

JULY 1, 2008 (W D F I R M)

# LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT 2009 Plan Update

		<ul style="list-style-type: none"> <li>constitute 'involvement and participation.' For 59 jurisdictions plus their 33 special districts, "no public comments" is considered unusual for a plan that may have significant impacts, commitments, and responsibilities for these communities. Explain the lack of public discussion in the planning process for a region with such a large population and address in the plan's strategy for actions to seek more public involvement and discussion.</li> <li>The plan requirements encourage local residents to participate in the mitigation planning and implementation process. A more broad public participation enables the development of mitigation actions that are supported by and reflect the needs of the community. Private sector participation, in particular, may lead to the identification of local funding that would not otherwise have been considered for mitigation activities.</li> <li>Conduct public meetings in each of the participating jurisdictions. These meetings do not have to be just for this Plan but are encouraged to tie into other priorities in the community that relate to this Plan. Consider additional ways to advertise these public meetings such as posters, radio, and flyers to optimize public attendance; and placing copies of the plan in public places such as the library.</li> <li>More outreach to ensure success of public involvement is needed. To improve the public outreach process, an individual or group of individuals from the Hazard Mitigation Team are strongly recommended to champion the plan and bring it to the attention of the community through community organizations such as churches, rotary clubs, and others. Another idea is to combine hazard mitigation meetings with other community events or conferences, e.g. the County Fair.</li> <li>Consider finding an individual that can attend public meetings (neighborhood meetings, Planning Commission, School Board, Transportation Advisory meetings) to relate the connections of this plan to other planning efforts and create an opportunity of incorporating the hazard mitigation plan. This provides additional opportunities for the public to engage in the plan's development, since they may be more likely to attend meetings where other issues are being discussed.</li> <li>The plan maintenance section requires a description about how the community was kept involved during the plan</li> </ul>		
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JULY 1, 2008 (W/D FIRM)

		<p>maintenance process over the previous five years. Since this contributes to the continued planning process, the community may choose to describe this within the planning process section of the plan update rather than the plan maintenance section. The plan maintenance section is intended to be forward thinking and emphasize future community involvement.</p>		
D. Does the <b>new or updated plan</b> discuss the opportunity for neighboring communities, agencies, businesses, academia, nonprofits, and other interested parties to be involved in the planning process?	Part III Page 15-18	<p>Yes. The list of working group members includes a broad range of agencies, academia, nonprofits, and other interested parties from the entire Wasatch Front region.</p> <p>However, the stakeholders that can bring resources and support to the implementation of this plan can be further expanded to include the Region's major employers, businesses, industries, for all those with an interest in the economic vitality and sustainability of this region.</p>	X	
E. Does the planning process describe the review and incorporation, if appropriate, of existing plans, studies, reports, and technical information?	Part III Page 18 & 22-23; Part VI 60-70; Part VII page 72-73	<p>Yes. In the Planning Process Section, the plan states that the team conducted a review of the governing documents of the planning region to identify what goals are already established and adopted for the planning area. On pages 22-23, the plan lists a number of information sources and describes how relevant information and data was extracted by the regional council's planner and then reviewed and approved for inclusion in the plan by the working groups.</p> <p>The plan also includes capability assessments for the jurisdictions that indicate what types of local land use planning tools are available such as comprehensive plans, zoning, and building codes.</p> <p>The Risk Assessment Section includes a table on pages 72-73 listing the data sources used for each hazard.</p>	X	
F. Does the updated plan document how the planning team reviewed and analyzed each section of the plan and whether each section was revised as part of the update process?		<p>Yes, however, the plan minimally describes the review of each risk assessment by each county's working group. The plan does provide general explanations but does not provide a comprehensive description of the how each section was revised as part of the update process.</p> <p>The plan states on page 18 that the planning committee and working groups reviewed the 2003 plan and determined that all</p>		X

JULY 1, 2008 (W/D FIRM)

# **LOCAL MITIGATION PLAN REVIEW CROSSWALK**

**Wasatch Front Region, UT 2009 Plan Update**

		<p>plan sections would need to be updated and revised. On page 22, the plan states that "based on the large amount of growth in communities throughout the WFRRC Region, it was determined by the Working Groups that the entire Plan would be updated."</p> <p><b>Recommended Revision:</b> This element should be improved for the next update by giving more details on how each section was revised as part of the update process.</p>		
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## **SUMMARY SCORE**

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**RISK ASSESSMENT: §201.6(c)(2):** *The plan shall include a risk assessment that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards.*

### **5. Identifying Hazards**

**Requirement §201.6(c)(2)(i):** *The risk assessment shall include a) description of the type ... of all natural hazards that can affect the jurisdiction.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the new or updated plan include a description of the types of all natural hazards that affect the jurisdiction?	Pages 71-319 and Appendix C	<p>Yes. The plan provides descriptions of 10 natural hazards: earthquake, landslide, wildfire fire, problem soils, slope failure, flood, drought, infestation, severe weather, radon, and 1 manmade hazard: dam failure. Pages 72-73 provide tables that describe how the hazard was identified and why and which jurisdictions (by county) are affected. All of the hazards affect each of the participating jurisdictions, with the exception of problem soils, which are thought to not be a hazard in Davis and Weber Counties. The plan provides hazard profiles for the entire region for severe weather, drought, infestation and radon. Hazard profiles for the remaining hazards are discussed at the county level</p> <p>The plan confirms plan review research of available online data suggesting severe weather, specifically thunderstorms (with hail and strong winds), flooding, and winter weather as the three greatest natural hazards to the Wasatch Front region in terms of past property damage and fatalities. Earthquake is the</p>		X



		<p>greatest natural hazard to the region for potential damage and fatalities. The significance of unreinforced masonry buildings (URMs) with regards to the earthquake hazards are described on pages 81-82.</p> <p>The plan includes a discussion of dams for each county, including maps showing the location of low, medium, and high hazard dams.</p> <p>Online EPA data suggests that there are a total of 100 reported toxic release inventory sites in the counties that make up the Wasatch Front region (26 in Davis County, 2 in Morgan County, 61 in Salt Lake County and 11 in Tooele County). This information could be included in a future plan update, within a Hazardous Materials Incident hazard profile). Please see <a href="http://www.epa.gov/triexplorer/">http://www.epa.gov/triexplorer/</a> for updated information.</p> <p><b>Recommended Revisions:</b></p> <ul style="list-style-type: none"> <li>When considering how to approach hazard identification, jurisdictions should refer to the State's risk assessment and approach hazard identification similarly.</li> <li>Continue to develop the assessment to both provide the big picture within the Region as well as providing local assessments that are meaningful to each of the jurisdictions so that they may further develop their applications of this information to local land use, infrastructure, and economic decisions.</li> <li>Identify any data limitations and include actions in the mitigation strategy of the plan to tell how the data will be obtained. The data would then be included in the risk assessment in the plan update.</li> <li>Determine if emergency action plans have been established for these dams as required by the National Dam Safety Act.</li> <li>Consider obtaining information regarding bridges with critical scour potential within the jurisdiction(s) seeking plan approval.</li> </ul>	
<b>SUMMARY SCORE</b>			X

**6. Profiling Hazards**

**Requirement §201.6(c)(2)(f):** [The risk assessment shall include a description of the ... location and extent of all natural hazards that can affect the

JULY 1, 2008 (W D FIRM)

# LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT 2009 - Plan Update

*jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the risk assessment identify the location (i.e., geographic area affected) of each natural hazard addressed in the <b>new or updated</b> plan?	Pages 71-319	Yes. The plan provides the location of regional hazards with maps of the entire Wasatch Front region and more specific county maps for those hazards that can be mapped locally. The plan also provides composite maps showing the high and moderate hazard levels compared to structure locations.  <b>Recommended Revision:</b> Ensure that map legends and details are legible. Provide information for the local communities and other users of the plan as to where they may obtain the map data to use for their local planning uses and map scale needs.		X
B. Does the risk assessment identify the extent (i.e., magnitude or severity) of each hazard addressed in the <b>new or updated</b> plan?	Pages 71-319	Yes. Each county profile has a section entitled "Description of Location and Extent" which includes a discussion of the magnitude of each hazard addressed in the plan. The plan is enhanced with the use and description of scientific scales used for measuring extent, such as the Fujita Scale, TORO hail Scale, Richter Scale, Beaufort Wind Scale, Saffir-Simpson Scale, and the Palmer Index or by using quantitative measurements such as: miles per hour, flood depth, inches of rain, fire danger rating, and acres burned. Each county profile also includes a table that rates the potential magnitude (level of damage on a countywide basis) as Catastrophic (greater than 50%), Critical (25-50%), Limited (10-25%), or Negligible (less than 25%). Throughout the plan, information is provided that relates to topography, soil characteristics, and meteorological conditions that may exacerbate or mitigate the potential effects of a particular hazard.		X
C. Does the plan provide information on <b>previous</b> occurrences of each hazard addressed in the <b>new or updated</b> plan?	Pages 71-319 and Appendix C	Yes. The plan provides statistical information related to past events throughout the document and provides color photos, graphs, charts, maps, etc. Spatial Hazard Events and Losses Database for the United States (SHELDUS) is noted as a source for previous occurrence data, as well as the National Weather Service (NWS), the Utah Climate Center, the Utah Division of Water Resources, Newspapers and local input. Appendix C includes tables for each county that include the		X

# LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT 2009 - Plan Update

		hazard type, the injuries, the percent of total injuries, the fatalities, the percent of total fatalities, the property damage, the percent of total property damage, the crop damage and the percent of total crop damage for each county and for each decade since the 1960s.		
D. Does the plan include the probability of future events (i.e., chance of occurrence) for each hazard addressed in the new or updated plan?	Pages 71-319	<p>Include all Presidential Disaster Declarations and Emergency Declarations with the \$ impacts from these events.</p> <p>Yes. Each county profile includes a table with the probability rated as Highly Likely, Likely, Possible, or Unlikely. The definition of these terms is not provided.</p> <p><b>Recommended Revisions:</b></p> <ul style="list-style-type: none"> <li>Describe the methodology or provide the definitions used to determine the probability for each natural hazard.</li> <li>Note any data limitations for profiling hazards and include in the mitigation strategy actions for collecting the data to complete and improve future risk analysis efforts.</li> </ul> <p>For more information on profiling hazards, see <i>Understanding Your Risks</i> (FEMA 386-2), Step 2.</p>	X	
SUMMARY SCORE				X

# **LOCAL MITIGATION PLAN REVIEW CROSSWALK**

**Wasatch Front Region, UT 2009 – Plan Update**

## **7. Assessing Vulnerability: Overview**

**Requirement §201, 6(c)(2)(ii):** [The risk assessment **shall** include a] **description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community.**

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the <b>new or updated</b> plan include an overall summary description of the jurisdiction's vulnerability to each hazard?	Pages 75-77 and 341	<p>Yes. The plan includes a thorough discussion of the methodology and analysis completed to understand the vulnerability to each hazard on pages 75-77. Also, each county profile includes a vulnerability assessment for each county and maps were generated that show the populated areas located within the hazard areas.</p> <p>It is noted in the plan maintenance section that future plan updates should include an expanded vulnerability assessment to include flood and dam failure inundation and an expanded look into how the identified natural hazards will affect certain populations including the young and elderly.</p> <p>In future plan updates, put this vulnerability into the perspective of whether it this/these are increasing or decreasing and how/why.</p>		X
B. Does the <b>new or updated</b> plan address the impact of each hazard on the jurisdiction?	Pages 75-77 and 92-319	<p>Yes. The methodology used to determine and analyze the impact of each hazard is discussed on Pages 75-77. Throughout the county profiles, the impact of each hazard is discussed with tables showing the casualties of past events, the secondary impacts/hazards resulting, the dollar/structure value losses, replacement costs, and annual sales lost for commercial properties. The plan makes the connections of the hazard events to locations specifically within the various jurisdictions. How are these impacts increasing/decreasing over the planning periods?</p>		X
<b>SUMMARY SCORE</b>				X

## 8. Assessing Vulnerability: Addressing Repetitive Loss Properties

**Requirement §201.6(c)(2)(ii):** *[The risk assessment] must also address National Flood Insurance Program (NFIP) insured structures that have been repetitively damaged floods.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the new or updated plan describe vulnerability in terms of the types and numbers of repetitive loss properties located in the identified hazard areas?	Part VII Page 83	<p>Each county profile includes a discussion of potential losses related to floods and past flood events. On page 83, the plan states that the WFR-C Region does not have any repetitive loss properties. However, the FEMA BCX Claims information as of 8/27/09 indicates otherwise. There are 5 repetitive losses in Salt Lake County and 4 in Weber County.</p> <p>The plan update must address this conflicting information.</p> <p>For information on existing structures in the floodplain and repetitive loss structures in your community, please contact the NFIP Coordinator/State Floodplain Coordinator in your community, or contact your State Hazard Mitigation Officer, www.bureau.net is an internet-based resource that is available to your SHMO to obtain biennial reports that indicate structures located in identified and mapped flood hazard areas.</p> <p><b>Note: This requirement becomes effective for all local plans approved after October 1, 2008.</b></p>		X
SUMMARY SCORE				X

## 9. Assessing Vulnerability: Identifying Structures

**Requirement §201.6(c)(2)(ii)(A):** *The plan should describe vulnerability in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard area . . .*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the new or updated plan describe vulnerability in terms of the types and numbers of existing buildings, infrastructure, and critical facilities located in the identified hazard areas?	Pages 75-77	This element is not fully addressed. Critical facilities and homes were located and overlaid with the mapped hazards using GIS software. When data permitted, structure, content, and function of the identified vulnerable infrastructure was incorporated into the vulnerability assessments. The plan documented the process and sources used to identify existing	X	

		<p>buildings, infrastructure, and critical facilities. The plan does not provide the types and numbers of all existing buildings and infrastructure located in the identified hazard areas.</p> <p><b>Recommended Revisions:</b></p> <ul style="list-style-type: none"> <li>For each hazard, identify the type and number of <b>existing</b> buildings, infrastructure, and critical facilities within each hazard area.</li> <li>The structure description should also include construction characteristics (e.g., year built, building material, freeboard, foundation types). The community should determine how best to indicate structures that are vulnerable to more than one hazard.</li> <li>Identify the collection of data for the remaining buildings and infrastructure as an action item in the mitigation strategy.</li> <li>Contact your State Hazard Mitigation Officer (SHMO) for information that may be readily available from the state to use in your vulnerability analysis.</li> </ul> <p>For a discussion on identifying vulnerable structures and detailed inventories, see <i>Understanding Your Risks</i> (FEMA 386-2), Step 3, Worksheet #3a and #3b, Inventory Assets.</p> <p><b>Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.</b></p> <p>This element is not fully addressed. The plan states that future planned development was not analyzed due to the lack of data available in GIS format. However, countywide development trends have been identified and are addressed. Areas vulnerable to multiple structurally-threatening hazards are mapped in each chapter. The plan does not provide the types and numbers of future buildings, infrastructure, and critical facilities located in the identified hazard areas.</p> <p><b>Recommended Revisions:</b></p> <ul style="list-style-type: none"> <li>The community should determine how far into the future they wish to go in considering proposed buildings, infrastructure, and critical facilities, including planned and approved development. Identify the types of future buildings (e.g., residential, commercial, institutional,</li> </ul>		
<b>B. Does the new or updated plan describe vulnerability in terms of the types and numbers of future buildings, infrastructure, and critical facilities located in the identified hazard areas?</b>	Pages 75-77			

# LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT 2009 – Plan Update

		<ul style="list-style-type: none"> <li>recreational, industrial, and municipal buildings), infrastructure (e.g., roadways, bridges, utilities, and communications systems), and critical facilities (e.g., shelters, hospitals, police, and fire stations),</li> <li>Information on proposed buildings, infrastructure, and critical facilities, including planned and approved development, may be based on information in the comprehensive or land use plan, zoning maps, assessors records for subdivided parcels, capital improvement plans/projects, DOT projects, economic development plans, and real estate ads. Also, some communities may opt to conduct a build-out analysis. Time your data-gathering phase with that of their comprehensive plan or land use plan.</li> <li>Identify buildings, infrastructure, and critical facilities that are vulnerable to more than one hazard.</li> </ul> <p>For a discussion on identifying vulnerable structures and detailed inventories, see <i>Understanding Your Risks</i> (FEMA 386-2), Step 3, Worksheet #3a and #3b, Inventory Assets.</p> <p><b>Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.</b></p>		
SUMMARY SCORE				X

**10. Assessing Vulnerability: Estimating Potential Losses**

**Requirement §201.6(c)(2)(ii)(B):** *The plan should describe vulnerability in terms of an estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(ii)(A) of this section and a description of the methodology used to prepare the estimate ....*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the new or updated plan estimate potential dollar losses to vulnerable structures?	Pages 75-77	<p>The methodology used to estimate potential dollar losses is provided on pages 75-77. The estimates are provided within the county profiles on pages 92-319. Estimates are included (in some cases limited to a certain building or infrastructure type) for dam failure, earthquake, flood, slope failure, problem soils, and wildfire.</p> <p><b>Recommended Revisions:</b></p> <ul style="list-style-type: none"> <li>Describe vulnerability in terms of potential dollar losses and provide an estimate for the regional hazards (severe weather, drought, infestation and radon). The estimate should include, when resources permit, estimates for structure, contents and function losses to present a full picture of the total loss for each building, infrastructure, and critical facility.</li> <li>Select the most likely event for each identified hazard (e.g., 100-year flood) and estimate the likely losses associated with this event.</li> </ul> <p><b>Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.</b></p>		X



B. Does the new or updated plan describe the methodology used to prepare the estimate?	Pages 75-77	<p>Yes. The plan describes the methodology used to prepare estimates when loss estimates are provided. The number of households and population vulnerable to each hazard was determined using Geographic Information Software, Transportation Analysis Zone data and Block Data from the 2000 Census. The plan utilized FEMA's HAZUS-MH and HAZUS-MH MR2 for earthquake and flood estimates.</p> <p><b>Recommended Revision:</b> Provide an estimate for each identified hazard. Make sure to differentiate between hazards in methodology as appropriate, as not all hazards result in the same level of impacts or potential loss. Also, be sure to describe if there were any changes made to this methodology in the updates and what these were.</p> <p><b>Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.</b></p>	X
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SUMMARY SCORE

X
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11. Assessing Vulnerability: Analyzing Development Trends

**Requirement §201.6(c)(2)(ii)(C):** *The plan should describe vulnerability in terms of providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.*

Element		Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
A. Does the new or updated plan describe land uses and development trends?		Pages 48-56	<p>Yes. The plan provides an adequate description of the development trends in the Wasatch Front region. Population, employment, household, and household size growth statistics are provided by county. The geographic and environmental constraints as well as the policy related actions that influence growth in the region are discussed as well.</p> <p><b>Recommended Revision:</b> There is much land use and development trend information that exists today which could have been further developed to assess how the risks and vulnerabilities of each of these communities is progressing with the Plan's past, current, and future mitigation strategies. For the next plan update, address these land uses and development trends in terms of how the risk is being impacted (reduced or increased) in a meaningful</p>	N	S
					X

# LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT 2009 – Plan Update

		and applicable way. Overlay a land use map for individual communities with identified hazard areas. <b>Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.</b>	
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SUMMARY SCORE

X

## 12. Multi-Jurisdictional Risk Assessment

**Requirement §201.6(c)(2)(iii):** For multi-jurisdictional plans, the risk assessment **must** assess each jurisdiction's risks where they vary from the risks facing the entire planning area.

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the new or updated plan include a risk assessment for each participating jurisdiction as needed to reflect unique or varied risks?	Page 73 and Pages 92-319	Yes. Page 73 includes a table that shows which jurisdictions are affected by which hazards. The plan includes a risk assessment for each participating jurisdiction on Pages 113-319. The three regional hazards (severe storm, drought, and radon) were grouped into one section on Pages 92-112.  <b>Recommended Revision:</b> While a table addresses element in general terms, continue to develop this risk assessment so that it is more meaningful at the jurisdictional level. For example, North Salt Lake City may have unique landslide/hillside conditions that would warrant special attention or a certain type of mitigation strategy to reduce the risk to the subcommunity planning area.		X

SUMMARY SCORE

X

**MITIGATION STRATEGY:** §201.6(c)(3): The plan shall include a mitigation strategy that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.

## 13. Local Hazard Mitigation Goals

**Requirement §201.6(c)(3)(i):** The hazard mitigation strategy shall include a) description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

Location in the

SCORE

JULY 1, 2008 (W / D F I R M)

Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A Does the <b>new or updated</b> plan include a description of mitigation <b>goals</b> to reduce or avoid long-term vulnerabilities to the identified hazards?	Pages 25-41; 92-319	<p>Yes. The plan lists the goals and objectives of the 2003 plan and provides the status of each. Throughout the county profiles, the plan provides goals, objectives, and actions for each county. The goals are very specific, long term and relate well to the risk assessment. In some cases, they may be too specific and read more as actions than as goals. Many of the goals are carried over from the previous plan.</p> <p><b>Recommended Revisions:</b></p> <ul style="list-style-type: none"> <li>Describe how the goals were developed. More should be included regarding how the 2003 goals and objectives were revised, and by whom. The goals could be developed early in the planning process and refined based on the risk assessment findings, or developed entirely after the risk assessment is completed.</li> <li>Consider including a discussion of how the goals of this plan are compatible (or not) with the goals of the jurisdiction as expressed in other documents.</li> </ul> <p>For more information on developing local mitigation goals and objectives, see <i>Developing the Mitigation Plan</i> (FEMA 386-3), Step 1, <i>Multi-Jurisdictional Mitigation Planning</i> (FEMA 386-8), p. 30, and <i>Integrating Manmade Hazards into Mitigation Planning</i> (FEMA 386-7), Phase 3, Step 1.</p>		X
<b>SUMMARY SCORE</b>				X

#### 14. Identification and Analysis of Mitigation Actions

**Requirement §201.6(c)(3)(ii):** [The mitigation strategy shall include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
A. Does the <b>new or updated</b> plan identify and analyze a <b>comprehensive range</b> of specific mitigation actions and projects for each hazard?	Pages 92-319	Yes. Within each county profile the plan includes a list of goals, objectives and mitigation actions with the time frame, funding sources, estimated cost, staff and	N	S
				X

		<p>jurisdictions of each project. There are a number of actions related to improved hazard data and/or analysis of hazard data to improve future mitigation efforts. The majority of the actions have a long-term mitigation focus.</p> <p><b>Recommended Revisions:</b></p> <ul style="list-style-type: none"> <li>Describe the process by which the community decided on particular mitigation actions.</li> <li>Provide a consolidated list of all the mitigation actions proposed.</li> <li>The plan update provides an opportunity for to reconsider the range of specific actions. If the mitigation actions or activities remain unchanged from the previously approved plan the updated plan should indicate why changes are not necessary.</li> </ul>	
B. Do the identified actions and projects address reducing the effects of hazards on <b>new</b> buildings and infrastructure?	Pages 92-319	<p>Yes. The following actions and projects address reducing the effects of hazards on new buildings and infrastructure:</p> <p>(1) Create Weber County ordinance adopting the 2006 Wildland-Urban Interface Code; 2) Establish ordinances in Tooele County with mandatory setbacks from 100-year and 500-year floodplains; and 3) utilize recommendations provided by State Geologic Hazards Working Group to address land use and planning for new developments in Salt Lake County's landslide hazard areas.</p> <p><b>Recommended Revision:</b></p> <p>Develop a matrix to show what actions address new and existing buildings and infrastructure and for which jurisdictions.</p> <p>For more details on identifying and evaluating mitigation actions, see <i>Developing the Mitigation Plan</i> (FEMA 386-3), Step 2.</p>	X
C. Do the identified actions and projects address reducing the effects of hazards on <b>existing</b> buildings and infrastructure?	Pages 92-319	<p>Yes. The following actions and projects address reducing the effects of hazards on existing buildings and infrastructure: (1) Draft ordinance requiring defensible space in Davis County; (2) Map and assess the structural integrity of canal systems in Morgan County and determine the vulnerability of persons and infrastructure; and (3) Complete seismic rehabilitation/retrofitting projects of public buildings at risk in Salt Lake County.</p>	X

## SUMMARY SCORE

X

## 15. Identification and Analysis of Mitigation Actions: National Flood Insurance Program (NFIP) Compliance

**Requirement: §201.6(c)(3)(ii): [The mitigation strategy] must also address the jurisdiction's participation in the National Flood Insurance Program (NFIP), and continued compliance with NFIP requirements, as appropriate.**

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the new or updated plan describe the jurisdiction(s) participation in the NFIP?	Pages 92-319	<p>This element was passed when the approvable decision was made, but should have not passed in the review as no list was provided that indicated EACH jurisdiction's participation and NFIP status (good standing, sanctioned, not mapped with DFIRM, etc.). This element was found to be deficient after the approvable decision was made by the FEMA reviewers. Throughout the county profiles, the plan mentions whether the County has "mapping through the NFIP". The plan's capability assessment indicates whether each jurisdiction has a floodplain ordinance. However, the plan does not explicitly list the jurisdiction(s) participation status. Sanctioned communities were not addressed.</p> <p><b>Recommended Revision:</b> The next plan update must list the NFIP participation for EACH participating jurisdiction. Describe any changes in NFIP status from the previously approved plan.</p> <p>For jurisdictions that are currently not participating, NFIP participation is voluntary for communities. Jurisdictions may meet this requirement by describing the reasons why the community does not participate, particularly where a FIRM FIRM has been issued. Address SANCTIONED jurisdictions.</p> <p>For additional information on the NFIP, see National Flood Insurance Program Description:  <a href="http://www.fema.gov/about/programs/nfip/index.shtml">http://www.fema.gov/about/programs/nfip/index.shtml</a>            and Community Rating Resource Center:  <a href="http://training.fema.gov/EMWeb/CRS/">http://training.fema.gov/EMWeb/CRS/</a></p> <p><b>Note: This requirement becomes effective for all local</b></p>		X

# LOCAL MITIGATION PLAN REVIEW/CROSSWALK

Wasatch Front Region, UT 2009 - Plan Update

	Pages 92-319	<i>mitigation plans approved after October 1, 2008.</i>	
<b>B. Does the mitigation strategy identify, analyze and prioritize actions related to continued compliance with the NFIP?</b>		<p>Yes. The plan includes actions related to participating in NFIP for Salt Lake, Tooele, and Weber Counties.</p> <p><b>Recommended Revision:</b> Communities are encouraged to take on additional activities that go above and beyond the minimum requirements of NFIP participation and these are described in the Community Rating System Coordinator's Manual (FIA-15/2007) (See <a href="http://training.fema.gov/EMWeb/CRS/">http://training.fema.gov/EMWeb/CRS/</a>).</p> <p><i>Note: This requirement becomes effective for all local mitigation plans approved after October 1, 2008.</i></p>	X

## SUMMARY SCORE

X

## 16. Implementation of Mitigation Actions

**Requirement: §201.6(c)(3)(iii):** [The mitigation strategy section **shall** include] an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization **shall** include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
<b>A. Does the new or updated mitigation strategy include how the actions are prioritized? (For example, is there a discussion of the process and criteria used?)</b>	Pages 20 and 92-319	<p><b>Reviewer's Comments</b></p> <p>Yes. The plan states that prioritization was accomplished using the STAPL/E method, which resulted in each county's Mitigation Strategy given a High, Medium or Low priority by the local planning teams. The core planning team, the technical team and the local planning teams, over a series of planning meetings, completed the prioritization process.</p> <p>As stated previously, the plan is organized such that each county has its own risk assessment, except for the regional hazards. Each County's Mitigation Strategy (including goals, objectives and actions) follows their risk assessment. As an introduction to each mitigation strategy, the plan states the date of the meeting when the strategy was formulated and how the group sought to refine and expand on the 2003 plan efforts. Each objective has a priority rating of High, Medium or Low. The definitions of these</p>		X

		<p>terms are not provided.</p> <p><b>Recommended Revisions:</b></p> <ul style="list-style-type: none"> <li>Provide definitions for your prioritization/ranking system.</li> <li>Describe how the public was involved in the prioritization process.</li> <li>Be clear in the updates how the priorities have or are changing between the planning periods and provide explanations where needed for a better understanding of why these may have changed.</li> </ul>		
B. Does the <b>new or updated</b> mitigation strategy address how the actions will be implemented and administered, including the responsible department, existing and potential resources and the timeframe to complete each action?	Pages 92-319 and 334-341	<p>Yes. Each mitigation action includes the expected time frame of implementation, funding sources, an estimate cost, responsible staff and specific jurisdictions within the county that are affected, as applicable. Also, the plan states that it will be the responsibility of Mayor/Council/Commissioner(s) of each jurisdiction, as they see fit, to ensure these actions are carried out no later than the target dates unless reasonable circumstances prevent their implementation (e.g. lack of funding availability). The WFR-C jurisdictions shall continue to seek outside funding assistance for mitigation projects in both the pre- and post-disaster environment.</p> <p><b>Recommended Revision:</b> Provide name, title, and agency when identifying the responsible party.</p>	X	
C. Does the <b>new or updated</b> prioritization process include an emphasis on the use of a <b>cost-benefit review</b> to maximize benefits?	Page 19	<p>Yes. The plan states that each Mitigation Strategy developed underwent a cost-benefit analysis to determine the best action to take given limited budgets allocated to hazard mitigation efforts at the local level. Also, the prioritization process utilized the FEMA approved STAPLE/E method.</p>	X	
D. Does the <b>updated</b> plan identify the completed, deleted or deferred mitigation actions as a benchmark for progress, and if activities are unchanged (i.e., deferred), does the updated plan describe why no changes occurred?	Pages 25-41	<p>Yes. The plan lists the prioritized set of mitigation goals, objectives, and actions from the 2003 Wasatch Front Pre-Disaster Mitigation Plan and provides a status update, including why no changes occurred, as applicable. The plan does not state specifically whether a new action is a carryover from the 2003 plan, however, a comparison of the two plans indicates that many are.</p>	X	

# LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT 2009 - Plan Update

		<b>Recommended Revision:</b> Identify those mitigation actions identified since the previous plan was approved or through the plan update process. The plan developers can take this one step further and relate to this progression to how the strategies are impacting the identified risks (i.e., increasing, decreasing, eliminating, to no change).		
SUMMARY SCORE				X

## 17. Multi-Jurisdictional Mitigation Actions

**Requirement §201.6(c)(3)(iv):** For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the new or updated plan include identifiable action items for each jurisdiction requesting FEMA approval of the plan?	Pages 92-319	Yes. Several of the mitigation actions are written to be considered county-wide for each county seeking plan approval. Therefore each jurisdiction seeking plan approval has an identifiable mitigation action.		X
B. Does the updated plan identify the completed, deleted or deferred mitigation actions as a benchmark for progress, and if activities are unchanged (i.e., deferred), does the updated plan describe why no changes occurred?	Pages 25-41	Yes. The plan lists the prioritized set of mitigation goals, objectives, and actions from the 2003 Wasatch Front Pre-Disaster Mitigation Plan and provides a status update, including why no changes occurred, as applicable. The plan does not state specifically whether a new action is a carryover from the 2003 plan, however, a comparison of the two plans indicates that many are.  <b>Recommended Revision:</b> <ul style="list-style-type: none"> <li>Identify those mitigation actions identified since the previous plan was approved or through the plan update process.</li> <li>The plan developers can take this one step further and relate to this progression to how the strategies are impacting the identified risks (i.e., increasing, decreasing, eliminating, to no change).</li> </ul>		X
SUMMARY SCORE				X



**PLAN MAINTENANCE PROCESS****18. Monitoring, Evaluating, and Updating the Plan**

**Requirement §201.6(c)(4)(f):** The plan maintenance process shall include a) section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the <b>new or updated</b> plan describe the method and schedule for <b>monitoring</b> the plan, including the responsible department?	Part XV Page 334-335	<p>Yes. The plan states that each county emergency manager will regularly monitor and annually review the plan and is responsible to make revisions and updates. The plan states that the process for monitoring the plan will include the county organizing a mitigation planning committee to assess progress of mitigation strategies.</p> <p><b>Recommended Revisions:</b></p> <ul style="list-style-type: none"> <li>Monitoring may include periodic reports by agencies involved in implementing actions; parameters to measure the progress of the actions; and action completion dates.</li> <li>It is recommended to highlight an outreach process for all three requirements regarding – monitoring, evaluating, and updating your plan.</li> <li>It is recommended to provide a schedule for all three element requirements that includes report generation, site visits for projects, and how contacts between responsible parties and outreach will occur.</li> </ul> <p>For guidance on monitoring the plan, see <i>Bringing the Plan to Life</i> (FEMA 386-4), Step 2.</p>		X
B. Does the <b>new or updated</b> plan describe the method and schedule for <b>evaluating</b> the plan, including how, when and by whom (i.e. the responsible department)?	Part XV Page 334-335	<p>Yes. The plan states that the plan will be revised to reflect lessons learned or to address specific hazard incidents arising out of a disaster. The Utah DHLS State Hazard Mitigation Officer, Local Mitigation Committee, or Mayor/City Manager of an affected community, will initiate amendments. In determining whether to recommend approval or denial of a plan amendment request, the DHLS will consider five criteria found in the plan before making a decision.</p>		X

C. Does the <b>new or updated</b> plan describe the method and schedule for <b>updating</b> the plan within the five-year cycle?	Part XV Page 334-335	<p><b>Recommended Revision:</b> For consistency with the language of the Rule, use the word "evaluate" to be clear regarding any actions to evaluate the plan.</p> <p>Yes. The plan describes the process to complete the five-year plan review/update.</p> <p><b>Recommended Revisions:</b></p> <ul style="list-style-type: none"> <li>▪ Develop a schedule that allows sufficient time for all activities up to and including adoption, such as:                             <ul style="list-style-type: none"> <li>a. Application and award for mitigation planning grants (if applicable);</li> <li>b. Contracting for technical or professional services (if applicable);</li> <li>c. Review of mitigation plan;</li> <li>d. Planning process to develop the update;</li> <li>e. State and/or FEMA reviews;</li> <li>f. Revising the updated plan, if necessary based on FEMA review comments; and</li> <li>g. Plan adoption procedures.</li> </ul> </li> <li>▪ Clearly identify the roles and responsibilities of the individual jurisdictions and that of the coordinating agency, which will update the overall plan (if the plan is to remain a multi-jurisdictional document.)</li> <li>▪ Although communities may want to do their own annual plan updates or after a disaster occurs, FEMA will only be involved in reviewing updates in the five-year cycle.</li> </ul> <p>For guidance on updating the plan, see <i>Bringing the Plan to Life</i> (FEMA 386-4), Step 4.</p>	X
<b>SUMMARY SCORE</b>			
			X

**19. Incorporation into Existing Planning Mechanisms**  
**Requirement §201.6(c)(4)(ii):** [The plan shall include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S

# LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT 2009 Plan Update

A. Does the <b>new or updated</b> plan identify other local planning mechanisms available for incorporating the mitigation requirements of the mitigation plan?	Page 336	<p>Yes. The plan identifies existing programs and plans where this plan's information could be included, such as the General or Master Plan, Capital Improvement Plan, Emergency Operations Plan, State Mitigation Plan, City Mitigation Plans. Many of the proposed mitigation actions include revisions to or new land use codes, buildings codes, wildland-urban interface codes, etc.</p> <p><b>Recommended Revision:</b> Prepare a matrix showing the range of other planning mechanisms and identify which apply to each action. See table created specifically for meeting this requirement available from your SHMO.</p> <p>For more information on integrating hazard mitigation activities in other initiatives, see <i>Bringing the Plan to Life</i> (FEMA 386-4), Step 2.</p>	X
B. Does the <b>new or updated</b> plan include a process by which the local government will incorporate the mitigation strategy and other information contained in the plan (e.g., risk assessment) into other planning mechanisms, when appropriate?	Page 336	<p>Yes. The plan states that it will be the responsibility of the Mayor/Council/Commissioner(s) of each jurisdiction, as he/she/they see fit, to ensure these actions are carried out. The mitigation actions that include revisions/additions to existing planning mechanisms include responsible parties, timelines, and funding sources.</p> <p><b>Recommended Revision:</b> Identify a specific process for incorporating the elements from this plan into other community plans or identify how this will be incorporated into plans developed in the future.</p> <p>For more information on integrating hazard mitigation activities in other initiatives, see <i>Getting Started</i> (FEMA 386-1), Step 2, <i>Multi-Jurisdictional Mitigation Planning</i> (FEMA 386-8), p.29, and <i>Planning for a Sustainable Future: The Link Between Hazard Mitigation and Livability</i> (FEMA 364).</p>	X
C. Does the <b>updated</b> plan explain how the local government incorporated the mitigation strategy and other information contained in the plan (e.g., risk assessment) into other planning mechanisms, when appropriate?	Pages 25-41	<p>Yes. The plan describes how/whether the mitigation actions of the 2003 plan have been implemented, including those actions that incorporated other planning mechanisms, such as: The local chapter of the</p>	X

		<p>American Planning Associated trained city and county planning and zoning officials and staff in Davis County in wildfire planning; Morgan County identified landslide zones and requires geotechnical studies on identified threat areas prior to the issuance of building permits; and the Weber County "Regional Stormwater Management Plan" was completed and submitted to the state in 2003.</p> <p><b>Recommended Revision:</b></p> <p>The Plan provides a general overview of Public Policy in Utah and the Wasatch Front region. On page 56 of this section it discusses Envision Utah but yet does not discuss whether the 2003 Plan and its Mitigation Strategy had been incorporated into the Envision Utah planning process. And if not, why not? Be sure to address this in the next plan update and for the planning periods (2004-2009 and 2009-2014).</p> <p>The Public Policy section also notes that development public policy is articulated in Master Plans and Land Use Management Codes and Open Space Plans. For the next plan update, provide an explanation of whether and how these local governments incorporated this Mitigation Strategy into these and other planning mechanisms. This could come from the evaluation information that was conducted over the last 5-10 year.</p> <p>This region was demonstrated to have a high level of planning and implementation capability.</p>		
SUMMARY SCORE				X

## 20. Continued Public Involvement

**Requirement §201.6(c)(4)(iii):** *The plan maintenance process shall include a) discussion on how the community will continue public participation in the plan maintenance process.*

Element	Location in the Plan (section or annex and page #)	Reviewer's Comments	SCORE	
			N	S
A. Does the new or updated plan explain how continued	Pages 339-341	Yes. The plan outlines a five-step process to		X

JULY 1, 2008 (W / D F I R M)

# LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT 2009 – Plan Update

public participation will be obtained? (For example, will there be public notices, an on-going mitigation plan committee, or annual review meetings with stakeholders?)		<p>encourage public participating in future updates, which includes the responsible agency, locations of draft plans, and a schedule for public meetings and receiving comments.</p> <p><b>Recommended Revisions:</b></p> <ul style="list-style-type: none"> <li>Describe who will be responsible for organizing events. Consider other local resources besides the Emergency Manager (EM) to lead this effort.</li> <li>Explain how public comments will be integrated into the plan updates.</li> <li>It is recommended that public outreach efforts include going out to community groups and organizations to inform community leaders about the plan and to obtain their input on future plan updates.</li> <li>Consider providing periodic updates to the various local planning boards and commissions.</li> </ul> <p>For more information on keeping the public involved, see <i>Getting Started</i> (FEMA 386-1), Step 3 and <i>Bringing the Plan to Life</i> (FEMA 386-4), Steps 2 and 3, and <i>Multi-Jurisdictional Mitigation Planning</i> (FEMA 386-8), p.38.</p>	
			X
<b>SUMMARY SCORE</b>			

**MATRIX A: PROFILING HAZARDS**

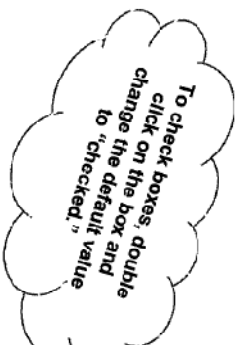
This matrix can assist FEMA and the State in scoring each hazard. Local jurisdictions may find the matrix useful to ensure that their plan addresses each natural hazard that can affect the jurisdiction. **Completing the matrix is not required.**

**Note: First, check which hazards are identified in requirement §201.6(c)(2)(i). Then, place a checkmark in either the N or S box for each applicable hazard. An "N" for any element of any identified hazard will result in a "Needs Improvement" score for this requirement. List the hazard and its related shortcoming in the comments section of the Plan Review Crosswalk.**

Hazard Type	Hazards Identified Per Requirement §201.6(c)(2)(i)		A. Location		B. Extent		C. Previous Occurrences		D. Probability of Future Events	
	Yes	No	N	S	N	S	N	S	N	S
Avalanche	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coastal Erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coastal Storm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dam Failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drought	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Earthquake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expansive Soils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lever Failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hailstorm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hurricane	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Land Subsidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landslide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Severe Winter Storm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tornado	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tsunami	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volcano	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wildfire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Windstorm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: Radon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: Infestation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Legend:

- §201.6(c)(2)(i) Profiling Hazards
- Does the risk assessment identify the location (i.e., geographic area affected) of each hazard addressed in the new or updated plan?
  - Does the risk assessment identify the extent (i.e., magnitude or severity) of each hazard addressed in the new or updated plan?
  - Does the plan provide information on previous occurrences of each natural hazard addressed in the new or updated plan?
  - Does the plan include the probability of future events (i.e., chance of occurrence) for each hazard addressed in the plan?



# LOCAL MITIGATION PLAN REVIEW CROSSWALK

Wasatch Front Region, UT 2009 – Plan Update

## MATRIX B: ASSESSING VULNERABILITY

This matrix can assist FEMA and the State in scoring each hazard. Local jurisdictions may find the matrix useful to ensure that the new or updated plan addresses each requirement. **Completing the matrix is not required.**

**Note:** First, check which hazards are identified in requirement §201.6(c)(2)(i). Then, place a checkmark in either the N or S box for each applicable hazard. An "N" for any element of any identified hazard will result in a "Needs Improvement" score for this requirement. List the hazard and its related shortcoming in the comments section of the Plan Review Crosswalk. **Note:** Receiving an N in the shaded columns will not preclude the plan from passing.

Hazard Type	Hazards Identified Per Requirement §201.6(c)(2)(i) Yes	§201.6(c)(2)(ii) Assessing Vulnerability: Overview		A. Overall Summary Description of Vulnerability		B. Hazard Impact		§201.6(c)(2)(ii) Assessing Vulnerability: Identifying Structures				§201.6(c)(2)(ii) Assessing Vulnerability: Estimating Potential Losses					
		N	S	N	S	N	S	N	S	N	S	N	S				
Avalanche	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Coastal Erosion	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Coastal Storm	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Dam Failure	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Drought	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Earthquake	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Expansive Soils	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Levee Failure	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Flood	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Halatorm	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Hurricane	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Land Subsidence	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Landslide	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Severe Winter Storm	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Tornado	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Tsunami	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Volcano	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Wildfire	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Windstorm	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Other Radon	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Other Infestation	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

To check boxes, double click on the box and change the default value to checked.

**Legend:**  
§201.6(c)(2)(ii) Assessing Vulnerability: Overview

- A. Does the new or updated plan include an overall summary description of the jurisdiction's vulnerability to each hazard?
- B. Does the new or updated plan address the impact of each hazard on the jurisdiction?

§201.6(c)(2)(ii)(A) Assessing Vulnerability: Identifying Structures

- A. Does the new or updated plan describe vulnerability in terms of the types and numbers of existing buildings, infrastructure, and critical facilities located in the identified hazard areas?

§201.6(c)(2)(ii)(B) Assessing Vulnerability: Estimating Potential Losses

- A. Does the new or updated plan estimate potential dollar losses to vulnerable structures?
- B. Does the new or updated plan describe the methodology used to prepare the estimate?

JULY 1, 2008 (W / D F I R M)

**MATRIX C: IDENTIFICATION AND ANALYSIS OF MITIGATION ACTIONS**

This matrix can assist FEMA and the State in scoring each hazard. Local jurisdictions may find the matrix useful to ensure consideration of a range of actions for each hazard. **Completing the matrix is not required.**

*Note: First, check which hazards are identified in requirement §201.6(c)(2)(i). Then, place a checkmark in either the N or S box for each applicable hazard. An "N" for any identified hazard will result in a "Needs Improvement" score for this requirement. List the hazard and its related shortcoming in the comments section of the Plan Review Crosswalk.*

Hazard Type	Hazards Identified Per Requirement §201.6(c)(2)(i)	A. Comprehensive Range of Actions and Projects	
	Yes	N	S
Avalanche	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coastal Erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coastal Storm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dam Failure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drought	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Earthquake	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expansive Soils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Levee Failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flood	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hailstorm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hurricane	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Land Subsidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landslide	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Severe Winter Storm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tornado	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tsunami	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volcano	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wildfire	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Windstorm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: Radon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: Infestation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



**Legend:**  
 §201.6(c)(3)(i) Identification and Analysis of Mitigation Actions  
 A. Does the new or updated plan identify and analyze a comprehensive range of specific mitigation actions and projects for each hazard?